



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, DC 20231

JA

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/848,082	03/21/96	DENNISON	E

TERRY M. GERNSTEIN  
1015 SALT MEADOW LANE  
MCLEAN VA 22101

LM02/0918

EXAMINER
MAUNG, N

ART UNIT	PAPER NUMBER
2744	5

DATE MAILED: 09/18/98

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**08/848,082**

Applicant(s)  
**Dennison et al.**

Examiner  
**Nay Maung**

Group Art Unit  
**2744**



☒ Responsive to communication(s) filed on Jul 31, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-65 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-65 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2744

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al.(herein Okamoto) in view of Hillis.

Consider claims 1, 16, 21, 22, and 27-29. Okamoto discloses a wireless over-the-air communications system that includes one or more cell sites, an MTSO, locating means in the cellular communications system for determining the exact location of a mobile (p. 3, lines 18-19); and

means in the MTSO for recognizing the position signal and using that position signal to establish the exact geographic location of the mobile unit (p. 4, lines 1-21), the management means including means for storing the geographic location, shape and size of each cell site in the communications system (p. 4, lines 1-21; in-range zone) and for comparing the exact geographic location of the mobile unit to the geographic location of each cellsite (p. 4, lines 17-21).

Art Unit: 2744

Okamoto does not explicitly show means for defining billing information for the mobile unit based on the exact geographic location of the mobile unit, and the means including tables containing billing information and positional data and means for comparing the exact geographic location of the mobile unit to the tables and assigning charges to the mobile unit based on the exact geographic location, and means in the data means for providing billing information based on the location of the mobile unit when a communication process.

However, the claimed limitations are very well-known in the art as evidenced by Hillis. Hillis discloses a communication system service billing arrangement for real-time billing for a mobile unit, the system having: means for defining billing information for the mobile unit based on the exact geographic location of the mobile unit, and the means including tables (inherently present in Hillis because discloses a computer for computing the charges) containing billing information and positional data and means for comparing the exact geographic location of the mobile unit to the tables and assigning charges to the mobile unit based on the exact geographic location, and means in the data means for providing billing information based on the location of the mobile unit when a communication process (col. 5, line 31 to col. 61). In addition, a user can determine current billing or calling rate on the mobile unit display which is provided by the billing computer (col. 7, lines 19-28).

Therefore, it would have been obvious to one of ordinary skill in the art to include a billing arrangement for a mobile unit in order to notify the user a current billing or calling rate; thus, the user can instantly determine how much the user spent on a phone bill.

Art Unit: 2744

Consider claims 2-4, 17, and 18. Hillis further discloses means for updating billing information as the mobile unit moves during a communication process (col. 6, lines 34-61; col. 1, lines 21-40).

Consider claims 5 and 6. Neither Okamoto nor Hillis does not explicitly show means for accepting or rejecting the communications process if the mobile is within or outside the prescribed geographic area. However, it would have been obvious to one of ordinary skill in the art, at the time of invention, if not inherent, to accept or deny communications if the mobile unit were in certain cells/zones/area. If a mobile unit's signal is too weak for a given area, then system resources would be wasted on those mobile units.

Consider claims 7 and 8. The combination of Okamoto and Hillis disclose all of the claimed limitation as disclosed above, but they do not explicitly show assigned frequencies or communication system based upon cell site selections. Nevertheless, it is very well-known in the art for cell sites to have assigned different frequency bands. Therefore, it would have been obvious to one of ordinary skill in the art to have not only assigned mobile units to service by certain cell sites, but to have also assigned frequencies based upon cell site selections.

Consider claims 9-12, 23, 26, 30, and 40. Okamoto discloses a wireless over-the-air communications system as discloses above, but Okamoto does not specifically show selecting a specific cell site to handle the communication process based on the exact geographic location. However, the claimed limitation is very well-known in the art as evidenced by Hillis.

Art Unit: 2744

Hillis teaches a dynamic pricing method and apparatus for communication systems having means for locating the originating of a mobile unit for computing a calling rate, and means for call routing to provide proper service for the mobile unit base on the location of the mobile unit, and hand-offs between cells (abstract; col. 5, lines 7-20; col. 6, lines 1-34).

Therefore, it would have been obvious to one of ordinary skill in the art to modify Okamoto's system in order to route the call from a specific cell site and to provide the maximum system utility, as taught by Hillis.

Consider claim 13-15, 20, 34, 35, and 41. The combination of Okamoto and Hillis disclose all of the claimed limitation as disclosed above, but they do not explicitly show assigned frequencies or communication system based upon cell site selections. Nevertheless, it is very well-known in the art for cell sites to have assigned different frequency bands. Therefore, it would have been obvious to one of ordinary skill in the art to have not only assigned mobile units to service by certain cell sites, but to have also assigned frequencies based upon cell site selections.

Consider claims 19, 31-33, and 36-39. Okamoto and Hillis discloses locating means includes a satellite communications system.

Consider claims 24 and 25. Neither Okamoto nor Hillis explicitly show means for providing taxing information. However, means for billing is well-known and commonly use in the cellular art as evidenced by Hillis, and the examiner takes "Official Notices" that means for

Art Unit: 2744

providing taxing information is well-known and commonly use in the communication art; and also, expect the taxing information in Hillis's system.

Therefore, it would have been obvious to one of ordinary skill in the art to use, means for providing billing information, in Okamoto's system in order to tax the usage of a mobile user's air time.

Consider claims 42-53. The combination of Okamoto and Hillis do not explicitly disclose at least one wireless system communications satellite. However, the satellite cellular systems are very well-known in the art, and would have been obvious to one of ordinary skill in the art, at the time of invention, that hand-over from one system to another, may well encompass hand-off to a wireless communications satellite.

Consider claims 54-65. Neither Okamoto nor Hillis disclose means for updating the location of the mobile unit at selected intervals. However, it would have been obvious to one of ordinary skill in the art, at the time of invention, to have updated on regular intervals, if not continuously, the location of mobile subscribers, given that subscribers do have the ability to roam.

Art Unit: 2744

***Conclusion***

1. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 308-9051, (for formal communications intended for entry)


**Or:**


(703) 305-9508 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist).

2. Any inquiry concerning this communication or earlier communications from the examiner  
should be directed to Nay Maung whose telephone number is (703) 308-7745.

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the Group receptionist whose telephone number is (703) 305-3900.

N. Maung   
September 11, 1998

  
DWAYNE D. BOST  
SUPERVISORY PATENT EXAMINER  
GROUP 2700

~~GROUP 2700~~  
~~SUPERVISORY PATENT EXAMINER~~  
~~DWAYNE D. BOST~~